

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HOODS POND	Lake Area (ha):	6.07
Town: DERRY	Maximum depth (m):	1.8
County: Rockingham	Mean depth (m):	0.9
River Basin: Merrimack	Volume (m ³):	55750
Latitude: 42°53'10" N	Relative depth:	0.7
Longitude: 71°19'51" W	Shore configuration:	1.00
Elevation (ft): 210	Areal water load (m/yr):	126.2
Shore length (m): 700	Flushing rate (yr ⁻¹):	137.4
Watershed area (ha): 1588.7	P retention coeff.:	0.17
% watershed ponded: 1.1	Lake type:	natural w/dam

BIOLOGICAL:

4 February 1998

19 August 1997

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO SAMPLES COLLECTED	DINOBRYON 55%
	#2		MELOSIRA 15%
	#3		MALLOMONAS 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			23.84
DOM. ZOOPLANKTON (% TOTAL)	#1	NO SAMPLES COLLECTED	NAUPLIUS LARVA 28%
	#2		ROTIFER SPP. 15%
	#3		CYCLOPOID COPEPOD 11%
ROTIFERS/LITER			899
MICROCRUSTACEA/LITER			917
ZOOPLANKTON ABUNDANCE (#/L)			1816
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			0.8
BOTTOM DISSOLVED OXYGEN (mg/L)		12.7	7.1
BACTERIA (E. coli, #/100 ml)	#1		22
	#2		21
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:

Lake: HOODS POND

Town: DERRY

	4 February 1998		19 August 1997		
DEPTH (m)	1.0		1.0		
pH (units)	6.5		7.4		
A.N.C. (Alkalinity)	12.1		29.9		
NITRATE NITROGEN	0.27		< 0.05		
TOTAL KJELDAHL NITROGEN	0.30		0.70		
TOTAL PHOSPHORUS	0.009		0.054		
CONDUCTIVITY (μ mhos/cm)	275.0		278.0		
APPARENT COLOR (cpu)	46		90		
MAGNESIUM			1.79		
CALCIUM			17.2		
SODIUM			29.9		
POTASSIUM			4.30		
CHLORIDE	70		63		
SULFATE	13		10		
TN : TP	63		13		
CALCITE SATURATION INDEX			1.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1997

D.O. S.D. PLANT CHL TOTAL CLASS

**	5	0	4	9	Meso.
----	---	---	---	---	-------

COMMENTS:

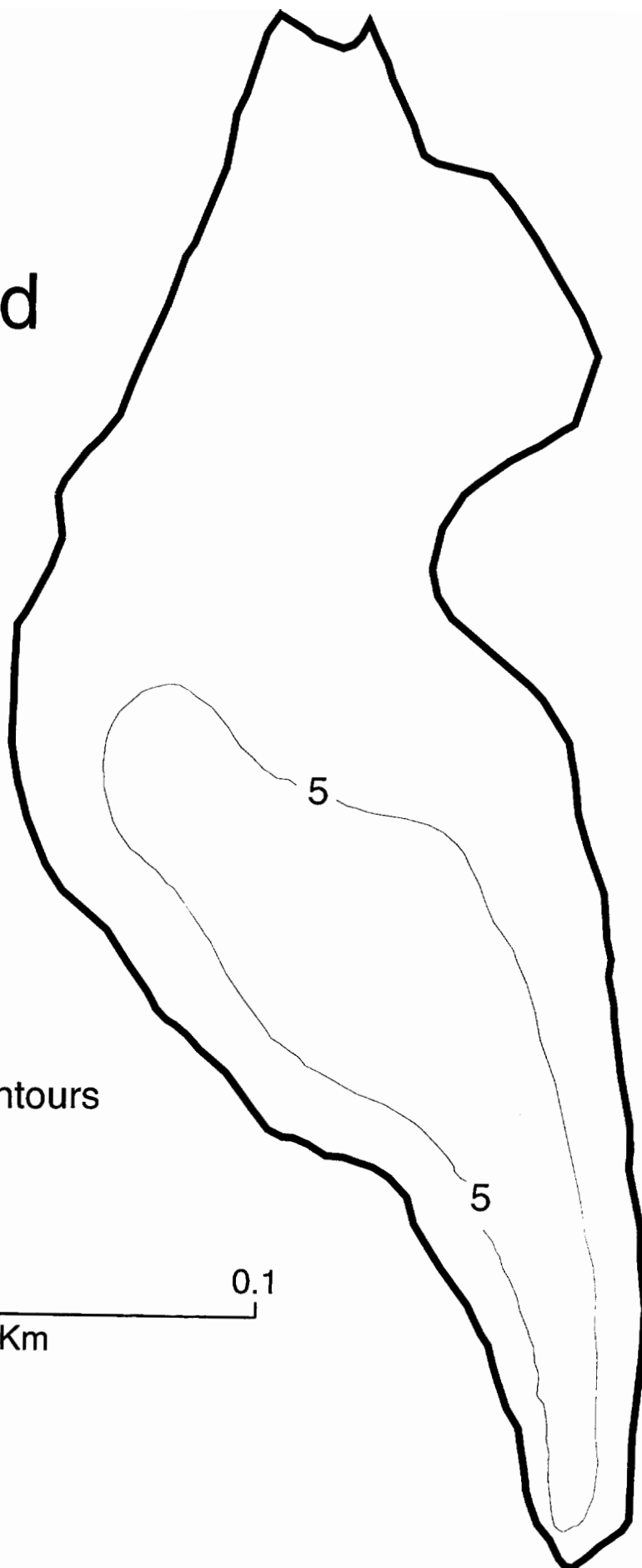
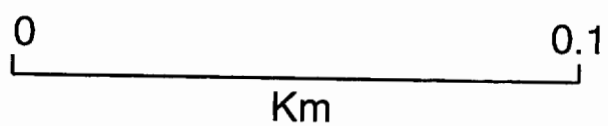
1. No boat access but a town beach and small park were located along the northeast shore.
2. This is a very productive pond with a high chlorophyll value, poor water clarity (less than 3 feet) and very abundant zooplankton numbers; but with sparse rooted plant growth. One more trophic point would have placed the pond in the eutrophic category.
3. This is a shallow pond with maximum depth of 6 feet near the concrete dam.
4. Hoods Pond is a dark tea-colored pond. Elevated conductivity, chloride and sodium (and other cations) values suggest urban runoff including salted roadways was entering the pond.

Hoods Pond

Derry



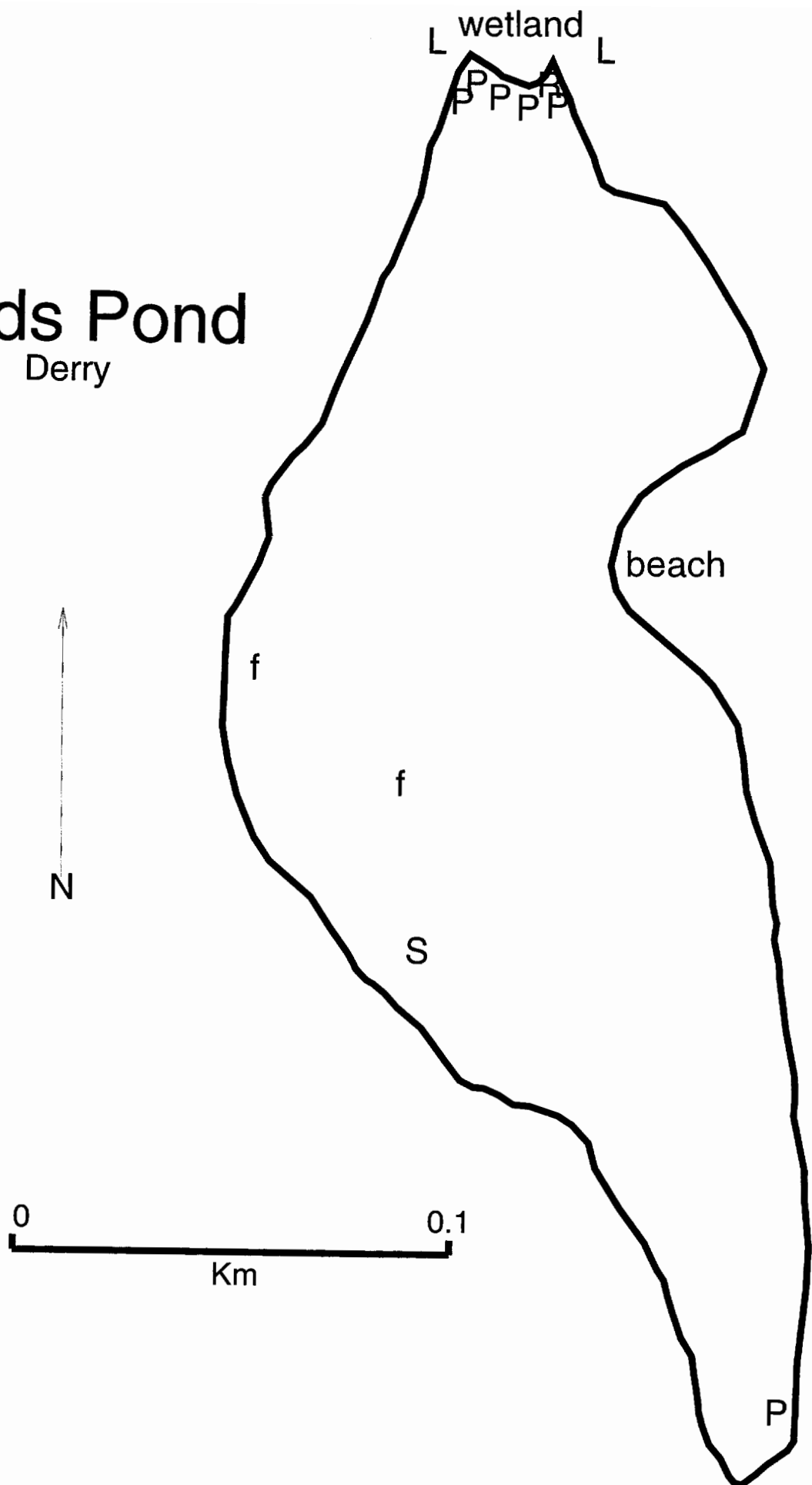
5 foot depth contours



[illegible]

Hoods Pond

Derry



[illegible]